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UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH ADMINISTRATION  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
Division of Forest Insect Investigations

FOREST INSECT CONDITIONS  
RUBICON RIVER AREA  
ELDORADO NATIONAL FOREST  
OCTOBER 1953  
RECONNAISSANCE SURVEY

In August, 1953, one of the Forest Insect Laboratory's cooperators, A. W. Herbert, Forester, Stockton Box Company, reported that intensive top-killing and other damage was occurring on their holdings in the Rubicon River Area within the Eldorado National Forest. A reconnaissance of the Area was accomplished on October 8 and 9 with the aid of Mr. Herbert who delineated the entire area in which he had observed insect damage.

Insect and Host Species

The hosts involved are mature and overmature ponderosa pine and sugar pine in virgin stands and mature and young Christmas-tree-size white fir and red fir. In the ponderosa pine, the California five-spined engraver (Ips confusus), the western pine beetle (Dendroctonus brevicornis) and pine twig beetles (Pityophthorus spp.) were found. In the sugar pine, the mountain pine beetle (Dendroctonus monticolae) and pine twig beetles (Pityophthorus spp.) were found. Serious defoliation of white fir and red fir, presumably by sawflies (Neodiprion spp.) was observed, but no sawflies were found at the time of this survey.

Status and Scope of Infestation

The infested areas are located in the northeast portion of the Eldorado National Forest, in the Rubicon River Drainages, and Long Canyon and Wallace Canyon. The areas examined were composed of alternate section ownership of Forest Service and Stockton Box Company lands. Top-killing is quite extensive in certain areas and is attributed mainly to Pityophthorus species. Sugar pine damage, though of moderate intensity, is well scattered as is ponderosa pine damage.

The sawfly damage to white fir and red fir which Stockton Box Company first reported in 1951 has extended its area of infestation again this year. It can now be found in parts of Sections 22, 23, 24, 26, 27, 33, and 34, T.15N, R.14E; Sections 5 and 6, T.14N, R.14E; and Sections 1 and 2, T.14N, R.13E. Damage to Christmas tree stock in some of these areas is very heavy.



### Discussion and Recommendations

Due to the inaccessibility of the region, salvage logging of ponderosa pine and sugar pine is not feasible at this time. However, should the infestation increase, some sort of salvage operation would be practical. Pityophthorus top-killing is quite prevalent throughout the area. This type of damage seems to be general on the western slope of the Sierras this year. Trees infested with these beetles may become further infested with other barkbeetles, but at this time it is doubtful that such will occur.

Sawflies are causing damage to Christmas-tree-size stands of white fir and red fir. It is not known whether both hosts are being damaged by the same species of sawfly or whether defoliation of red fir is due to a newly found sawfly belonging to an entirely different family (Iyelidae). These stands are of rather high economic value for Christmas trees, and a more detailed survey should be carried out by the Forest Insect Laboratory next spring to ascertain the species of sawfly involved, the extent of the damage to infested trees, and the need for control.

Mr. Herbert's comprehensive insect report of conditions in his area greatly facilitated the Forest Insect Laboratory's survey of insect damage.

Forest Insect Laboratory  
Berkeley, California  
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Boyd E. Wickman  
Supervisory Control Aid